II. REMARKS

A. Status of the Claims

Claims 52-83 were pending at the time of the Office Action. Claims 54, 55, 56, 58, 60, 61, 63, 64, and 67 have been amended herein. Claims 52 and 53 have been canceled without prejudice or disclaimer. Therefore, claims 54-83 are now pending and presented for reconsideration.

B. The Provisional Double Patenting Rejections will be Addressed at a Later Date, if Necessary

The Examiner has set forth provisional rejections of four subsets of claims under the judicially created doctrine of obviousness-type double patenting based on copending Applications No. 10/732,919, 09/599,152, 10/672,763, and 10/703,405. Applicants will address the substance of these rejections at a later date as they are merely *provisional* since the grounds for the rejections are two patent applications, not issued patents. According to the *Manual of Patent Examining Procedure (MPEP)* § 804 (I)(B), a provisional rejection must be withdrawn if the claims are otherwise allowable. According to *MPEP* §804(I)(B), the primary purpose of the provisional double-patenting rejection is for its notice function for the Applicant, so they Applicants can plan and proceed accordingly. As such, Applicants prefer to address this issue once one of the cited applications issues as a patent.

C. The Rejection Under 35 U.S.C. §102(b) is Overcome

Claims 52, 53, 55, 64, and 65 have been rejected under 35 U.S.C. §102(b) as being anticipated by Anderson *et al.* Anderson *et al.* is said to disclose a method of delivering a radionuclide labeled bisaminoethanethiol targeting ligand conjugate to a subject.

Without conceding that the claims as originally written were anticipated by Anderson *et al.*, Applicants draw the Examiner's attention to the Amendment set forth herein. Claims 52 and 53 have been canceled without prejudice or disclaimer. Claim 54, which was not included in this rejection, has been amended to be in independent form. Claims 55, 64, and 65 have been amended to depend from claim 54. Because claims 55, 64, and 65 now depend from a claim that was not included in this rejection, the rejection of claims 55, 64, and 65 is now moot. Applicants therefore respectfully request withdrawal of the rejection of claims 55, 64, and 65 under 35 U.S.C. §102(b).

D. The Rejections Under 35 U.S.C. §103(a) are Overcome

1. Rejections Based on Yang *et al.* (J. Labelled Compd. Radiopharm., 42, Suppl. 1, 1999, pp. S696-S697)

Claims 52, 53, 55-57, 60-62, 64-69, and 72 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Yang *et al.* (*J. Labelled Compd. Radiopharm.*, 42, Suppl. 1, 1999, pp. S696-S697). According to the Action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deliver a radionuclide complex to a subject since both the cited prior art and the instant invention are directed to a method of delivering a radionuclide to target cells *in vivo* wherein a composition comprising a radiolabeled bisaminoethanethiol targeting ligand conjugate is utilized. Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met: (1) the cited references must teach or suggest all the claim limitations; (2) there must be some

suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (3) there must be a reasonable expectation of success. *MPEP* § 2142; See also *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed Cir. 1991).

There is no *prima facie* case of obviousness because the Examiner has not met his burden of establishing that Yang *et al.* teaches or suggests each element of the claimed invention. It should first be noted that the rejection of claims 52 and 53 is moot since these claims have been canceled without prejudice or disclaimer. The remaining claims at issue in this rejection depend from claim 54, which was not rejected. Without conceding that the claims as originally written were obvious over Ilgan *et al.*, Applicants point out that claim 54 pertains to "[a] method of delivering a radionuclide into target cells of a subject, . . . wherein the subject is a human." Yang *et al.* does not teach or suggest administration of any radionuclide-labeled bis-aminoethanethiol (BAT)-targeting ligand conjugate into target cells of a human subject. The only human subject referred to in Yang *et al.* was a patient with a bone fracture, and it is indicated that there was "no uptake" of ^{111}In-DTPA-methotrexate in the subject following administration. Page S697. Thus, this reference teaches away from the claimed invention. Regarding dependent claims, Applicants are unable to identify any teaching or suggestion in Yang *et al.* regarding target cells in the breast, ovary, prostate, endometrium, lung, brain, or liver of a human subject (claim 55), or target cells in a tumor in a human subject (claim 56), or any of the tumors set forth in claim 57, wherein the tumors are in a human. Because there is no teaching or suggestion of each limitation of the claimed invention, there can be no *prima facie* case of obviousness.

Nevertheless, it is respectfully submitted that Yang *et al.* (*J. Labelled Compd. Radiopharm.*, 42, Suppl. 1, 1999, pp. S696-S697) is not prior art. Applicants have herein

attached a declaration of inventors (Exhibit 1) demonstrating the Yang *et al.* is a publication of the inventors describing their own invention. This declaration is set forth in accordance with *In re Katz*, which establishes the ability to remove an inventor's own art as prior art where the non-inventor co-author of cited art is acting under inventor's direction and control. *In re Katz*, 687 F.2d 450, 215 U.S.P.Q. 14 (CCPA 1982).

The declaration of inventors submitted herein sets forth the role that each of the non-inventor authors played with respect to the subject matter of Yang *et al.*, indicating that "[e]ach of these individuals operated under the direction of one or more of the inventors with respect to the studies that the individual carried out, and did not contribute conceptually to the subject matter of the invention." Declaration, paragraph 7. As such, Yang *et al.* is not available as prior art.

Therefore, in view of the above, Applicants respectfully request that the rejection of claim 52, 53, 55-57, 60-62, 64-69, and 72 under 35 U.S.C. §103(a) as being unpatentable over Yang *et al.* (*J. Labelled Compd. Radiopharm.*, 42, Suppl. 1, 1999, pp. S696-S697) should be withdrawn.

2. Rejections Based on Ilgan *et al.*

The Action next rejects claims 52-57, 60-69, 72, and 73 as obvious over Ilgan *et al.* According to the Action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deliver a radionuclide complex to a subject since both the cited prior art and the instant invention are directed to a method of delivering a radionuclide to target cells *in vivo* wherein a composition comprising a radiolabeled bis-aminoethanethiol targeting ligand conjugate is utilized. Applicants respectfully traverse this rejection.

As set forth above, the rejection of claims 52 and 53 is moot since these claims have been canceled without prejudice or disclaimer. The remaining claims at issue in this rejection depend from claim 54. Ilgan *et al.* does not teach or suggest administration of ^{99m}Tc-EC-folate to a human subject. Regarding dependent claims, there is no teaching or suggestion regarding target cells in the breast, ovary, prostate, endometrium, lung, brain, or liver of a human subject (claim 55), or target cells in a tumor in a human subject (claim 56), or any of the tumors set forth in claim 57, wherein the tumors are in a human. Because there is no teaching or suggestion of each limitation of the claimed invention, there can be no *prima facie* case of obviousness.

Furthermore, it is respectfully submitted that Ilgan *et al.* is not prior art. The attached declaration of inventors (Exhibit 1) is sufficient to remove Ilgan *et al.* as prior art because, in accordance with *In re Katz*, the declaration demonstrates that this reference is a publication of the inventors describing their own invention. *In re Katz*, 687 F.2d 450, 215 U.S.P.Q. 14 (CCPA 1982). A similar declaration to overcome Ilgan *et al.* as prior art was set forth in response to a rejection during the prosecution of related application 09/434,313 (now issued as U.S. Patent 6,692,724).

The declaration of inventors submitted herein sets forth the role that each of the non-inventor authors played with respect to the subject matter of Ilgan *et al.*, indicating that "[e]ach of these individuals operated under the direction of one or more of the inventors with respect to the studies that the individual carried out, and did not contribute conceptually to the subject matter of the invention." Declaration, paragraph 4. As such, Ilgan *et al.* is not available as prior art.

Therefore, Applicants respectfully request that the rejection of claims 52-57, 60-69, 72, and 73 under 35 U.S.C. §103(a) as being unpatentable over Ilgan *et al.* should be withdrawn.

3. Rejections Based on Yang *et al.* (Pharm. Res. 16(5), 1999, pp. 743-750)

The Action next rejects claims 52, 53, 55-57, 60-62, 64-66, 74, and 75 as obvious over Yang *et al. (Pharm. Res. 16(5), 1999, pp. 743-750).* According to the Action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deliver a radionuclide complex to a subject since both the cited prior art and the instant invention are directed to a method of delivering a radionuclide to target cells *in vivo* wherein a composition comprising a radiolabeled bis-aminoethanethiol targeting ligand conjugate is utilized. Applicants respectfully traverse this rejection. Applicants respectfully traverse this rejection.

As set forth above, the claims at issue in this rejection depend from claim 54. The Examiner has not pointed out, and Applications do not find, any indication that Yang *et al.* teaches or suggests administration of any radionuclide-labeled bis-aminoethanethiol (BAT)-targeting ligand conjugate into a human subject. Regarding dependent claims, Applicants are unable to identify any teaching or suggestion regarding target cells in the breast, ovary, prostate, endometrium, lung, brain, or liver of a human subject (claim 55), or target cells in a tumor in a human subject (claim 56), or any of the tumors set forth in claim 57 that are in a human subject. Unless the Examiner can identify any such teaching or suggestion of these limitations of the claimed invention, there can be no *prima facie* case of obviousness.

Nevertheless, it is respectfully submitted that Yang *et al. (Pharm. Res. 16(5), 1999, pp. 743-750)* is not prior art. The attached declaration of inventors is sufficient to remove Yang *et al.* as prior art because, in accordance with *In re Katz*, the declaration demonstrates that this reference is a publication of the inventors describing their own invention. *In re Katz*, 687 F.2d 450, 215 U.S.P.Q. 14 (CCPA 1982). A similar declaration to overcome Yang *et al.* as prior art

was set forth in response to a rejection during the prosecution of related application 09/434,313 (now issued as U.S. Patent 6,692,724).

The declaration of inventors submitted herein sets forth the role that each of the non-inventor authors played with respect to the subject matter of Yang *et al.*, indicating that "[e]ach of these individuals operated under the direction of one or more of the inventors with respect to the studies that the individual carried out, and did not contribute conceptually to the subject matter of the invention." Declaration, paragraph 5. As such, Yang *et al. (Pharm. Res. 16(5), 1999, pp. 743-750)*is not available as prior art.

Therefore, Applicants respectfully request that the rejection of claims 52, 53, 55-57, 60-62, 64-66, 74, and 75 under 35 U.S.C. §103(a) as being unpatentable over Yang *et al. (Pharm. Res. 16(5), 1999, pp. 743-750)* should be withdrawn.

4. Rejections Based on Zareneyrizi *et al.*

Claims 52, 53, 55-57, 60-62, 64-67, 74, and 75 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Zareneyrizi *et al.* According to the Action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deliver a radionuclide complex to a subject since both the cited prior art and the instant invention are directed to a method of delivering a radionuclide to target cells *in vivo* wherein a composition comprising a radiolabeled bisaminoethanethiol targeting ligand conjugate is utilized. Applicants respectfully traverse this rejection.

There is no *prima facie* case of obviousness because the Examiner has not pointed out, nor do Applicants identify, a teaching or suggestion of each limitation of the claimed invention in Zareneyrizi *et al.* The claims at issue in this rejection depend from claim 54. Zareneyrizi *et al.* does not teach or suggest administration of any radionuclide-labeled bisi-aminoethanethiol

(BAT)-targeting ligand conjugate to a human subject. Regarding dependent claims, there is no teaching or suggestion regarding target cells in the breast, ovary, prostate, endometrium, lung, brain, or liver of a human subject (claim 55), or target cells in a tumor in a human subject (claim 56), or any of the tumors set forth in claim 57 that are in a human subject. Because there is no teaching or suggestion of each limitation of the claimed invention, there can be no *prima facie* case of obviousness.

Nevertheless, it is respectfully submitted that Zareneyrizi *et al.* is not prior art. The attached declaration of inventors is sufficient to remove Zareneyrizi *et al.* as prior art because, in accordance with *In re Katz*, the declaration demonstrates that this reference is a publication of the inventors describing their own invention. *In re Katz*, 687 F.2d 450, 215 U.S.P.Q. 14 (CCPA 1982). A similar declaration to overcome Zareneyrizi *et al.* as prior art was set forth in response to a rejection during the prosecution of related application 09/434,313 (now issued as U.S. Patent 6,692,724).

The declaration of inventors submitted herein sets forth the role that each of the non-inventor authors played with respect to the subject matter of Zareneyrizi *et al.*, indicating that "[e]ach of these individuals operated under the direction of one or more of the inventors with respect to the studies that the individual carried out, and did not contribute conceptually to the subject matter of the invention." Declaration, paragraph 6. As such, Zareneyrizi *et al.* is not available as prior art.

Therefore, Applicants respectfully request that the rejection of claims 52-57, 60-69, 72, and 73 under 35 U.S.C. §103(a) as being unpatentable over Zareneyrizi *et al.* should be withdrawn.

E. Conclusion

It is submitted that in light of the foregoing amendments and remarks, the invention embraced by the pending claims as been shown to be patentable, and favorable reconsideration is earnestly solicited. The Examiner is invited to contact the undersigned attorney with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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